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Short Report

**Introduction:**

Mild traumatic brain injury (mTBI), known as concussion, is receiving increasing global attention. Growing concerns about the potential long-term effects of mTBI have highlighted the need for good management and follow-up care.[1] Given that regional emergency departments (EDs) experience higher rates of mTBI presentations compared with metropolitan EDs and are often the first point of contact, the provision of evidence-based care in these settings is crucial for positive patient outcomes.[2] Follow-up after mTBI has shown promising results in reducing the number and severity of symptoms.[3]

Clinical practice guidelines (CPG) have been developed to standardise medical practice for the management of mTBI from presentation to recovery. [3] A large regional health service has developed a CPG for the management of mTBI which includes evidence-based criteria for Computed Tomography (CT) scanning and discharge procedures. Discharge procedures include education and referrals/follow-up to be provided, with all patients undergoing CT requiring referral to the health service's Acquired Brain Injury (ABI) clinic. The health service's ABI program provides assessment, treatment and coordination of care for people with an ABI. Appropriate timely follow up has been shown to aid recovery and decrease long term cognitive disability.[2, 4] The aim of this paper is to provide an insight into the compliance with mTBI procedures at discharge from the ED in a regional context.

**Participants, Method, Results:**

A retrospective audit was conducted of 540 records of patients, ≥16 years of age, who presented with an mTBI to an Australian regional health service ED between February 1st, 2014 and January 31st, 2015. Cases were selected using Victorian Admitted Episodes Dataset codes for suspected head injury: principal diagnosis codes (S00-T98); concussive injury recorded in diagnosis codes (S06.00-S0.05); and unintentional external cause code (V00-X59). Data was analysed to determine the follow up and discharge procedures.

Over one third (n=192, 35.6%) had no referral details of any kind and over half (n=301, 55.7%) presenting with an mTBI to the ED received a CT scan (Figure 1). Only 19 patients who received a CT (6.3%) had a documented referral to the ABI clinic. More than half of the patients were referred to the GP for follow-up and less than a third were given the head injury booklet/DVD education package (n=174, 32.2%) and the head injury advice card (n=178, 32.9%) on discharge.

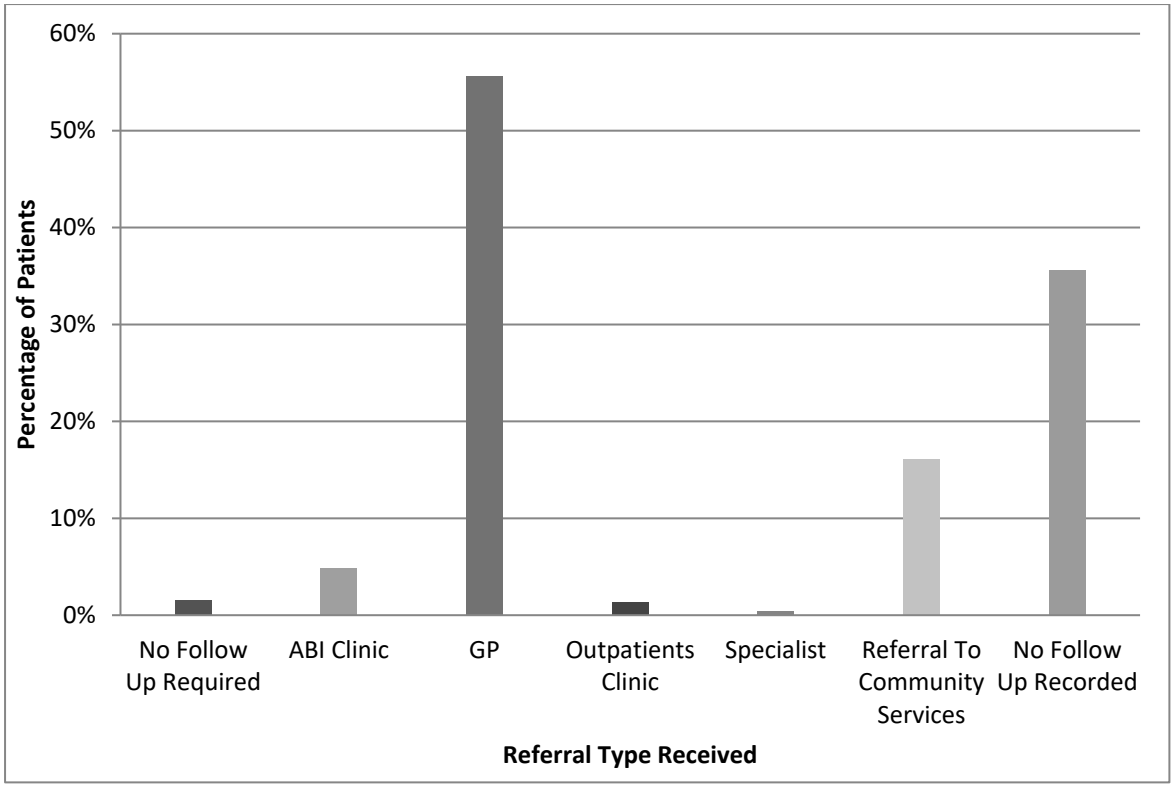


Figure 1. Referral types received on discharge from ED (n=540)

**Comment:**

The results demonstrate that specialised facilities and resources available for follow-up care have not been fully utilised for mTBI management, resulting in an over reliance on GPs. Given that over half of the cohort received a CT scan, the major criterion for an ABI clinic referral, the percentage of ABI clinic referrals should have been considerably higher. Although not investigated in this study, the reason for low referral to the ABI clinic could be related to the lack of treating clinicians' knowledge of appropriate services as previously suggested by Tavender et al.[5] Referrals to services such as the ABI clinic, could also potentially increase by ensuring GPs are aware of such services and the importance of their role in the long term management of mTBI.

An mTBI injury reduces functional capacity, often preventing return to work and normal daily activities, which can affect many areas of a person's life.[4] If the number of referrals to the ABI clinic increased, the potential increase of support for persons suffering from mTBI, could aid the return to work process, and to pre-injury level of function sooner. While full compliance with CPG can be difficult in ED environments, given that EDs are a primary source of healthcare service in regional settings, adherence to the proper referral process could also significantly reduce the pressure on the ED to provide the follow-up of mTBI patients, improving the efficiency of the ED and provide emergency care for new cases in the community.

References

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